

AMENDMENT UNDER 35 U.S.C. § 1.111
U.S. Application No.: 09/899,601
Attorney Docket No.: Q65349

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method of making a discontinuous paper body, comprising the steps of:
feeding a raw material with a predetermined concentration into water which is in a stirred condition;
maintaining the stirring condition for a predetermined time after said feeding step is completed; and
passing the raw material diluted with the water through a wire cloth, while the stirred condition is maintained.
2. (Original) The paper making method according to claim 1, wherein said paper body is a discontinuous annular body, and the stirred condition is obtained by a plurality of stirring mechanisms equally disposed above said wire cloth.
3. (Original) The paper making method according to claim 2, wherein the stirred condition is obtained by said plurality of stirring mechanisms alternately disposed with respect to a central annular line of a paper making portion of said wire cloth.
4. (Original) The paper making method according to claim 1, wherein said stirring mechanisms are air nozzles, and the raw material is stirred by air jetted from said air nozzles.

5. (Original) The paper making method according to claim 1, further comprising the step of:

cleansing the inside of a stirring tank after the paper making operation.

6. (Original) The paper making method according to claim 1, wherein the inside of said stirring tank is cleansed before water and raw material are fed therein.

7. (Withdrawn) An apparatus for making paper, comprising:

a stirring tank including:

an outer cylinder;

a middle cylinder located concentrically with said outer cylinder and in the inside of said outer cylinder;

a raw-material feeding port for feeding a raw material;

stirring mechanisms disposed between said outer cylinder and said middle cylinder;

and

a top plate for holding said outer and middle cylinders in a predetermined position,

and

a paper making portion installed below said stirring tank, said paper making portion including:

a wire cloth; and

a paper making frame having an opening for holding said wire cloth, said opening being connected to a suction unit,

wherein said stirring mechanisms are uniformly disposed above said wire cloth.

8. (Withdrawn) The paper making apparatus according to claim 7, wherein said equally disposed stirring mechanisms are alternately disposed with respect to a central annular line of a paper making portion of said wire cloth.

9. (Withdrawn) The paper making apparatus according to claim 7, wherein said stirring mechanisms are air nozzles.

10. (Withdrawn) The paper making apparatus according to claim 7, wherein a cleaning fluid jet mechanism is provided on said top plate.

11. (Withdrawn) A method of making an annular paper body, comprising the steps of:
feeding a raw material from a raw-material feeding port disposed above a wire cloth so that the raw material is uniformly fed onto said wire cloth; and
passing the raw material diluted in water through said wire cloth.

12. (Withdrawn) The paper making method according to claim 11, wherein said feeding step feeds the raw material from a plurality of raw-material feeding ports uniformly disposed above said wire cloth.

13. (Withdrawn) The paper making method according to claim 12, wherein said feeding step feeds the raw material from said plurality of raw-material feeding ports alternately disposed with respect to a central annular line of a paper making portion of said wire cloth.

14. (Withdrawn) The paper making method according to claim 11, wherein in said feeding step, the raw material is fed while crawling on the surface of a middle cylinder provided within a paper making apparatus.

15. (Withdrawn) The paper making method according to claim 11, wherein a central body having a substantially conical portion is provided within a paper making apparatus, and said feeding step feeds the raw material toward the apex of said conical portion of said central body.

16. (Withdrawn) The paper making method according to claims 11, wherein said feeding step feeds the raw material with a predetermined concentration into water which is in a stirred condition, and

said passing step is carried out while maintaining the stirred condition for a predetermined time after said feeding step is completed.

17. (Withdrawn) A paper making apparatus comprising:

a stirring tank including:

an outer cylinder;

a middle cylinder located concentrically with the outer cylinder and in the inside of said outer cylinder;

a raw-material feeding port for feeding a raw material;

stirring mechanisms disposed between said outer cylinder and said middle cylinder;

and

a top plate for holding said outer cylinder, said middle cylinder and said stirring mechanisms in a predetermined position; and

a paper making portion disposed in a lower portion of said stirring tank, said paper making portion including:

a wire cloth; and

a central body having an opening for holding said wire cloth and is connected to a suction unit,
wherein said raw-material feeding ports are uniformly disposed above said wire cloth.

18. (Withdrawn) The paper making apparatus according to claim 17, wherein said raw-material feeding ports are alternately disposed with respect to a central annular line of a paper making portion of said wire cloth.

19. (Withdrawn) The paper making apparatus according to claim 17, wherein the middle cylinder has a cylindrical column shape.

20. (Withdrawn) The paper making apparatus according to claim 17, wherein one of a stirring air supply hole, said raw-material feeding port and a cleaning fluid jet port is provided on a side surface of said middle cylinder.

21. (Withdrawn) A paper making apparatus comprising:

a stirring tank including:

an outer cylinder;

a middle cylinder located concentrically with the outer cylinder and in the inside of said outer cylinder;

a raw-material feeding port for feeding a raw material;

stirring mechanisms disposed between said outer cylinder and said middle cylinder;

and

a top plate for holding said outer cylinder, said middle cylinder and said stirring mechanisms in a predetermined position; and

AMENDMENT UNDER 35 U.S.C. § 1.111
U.S. Application No.: 09/899,601
Attorney Docket No.: Q65349

a paper making portion disposed in a lower portion of said stirring tank, said paper making portion including:

a wire cloth; and

a central body having an opening for holding said wire cloth and is connected to a suction unit,

wherein said raw-material feeding port is directed to the outer peripheral surface of said middle cylinder.

22. (Withdrawn) A paper making apparatus comprising:

a stirring tank including:

an outer cylinder;

a raw-material feeding port for feeding a raw material;

stirring mechanisms disposed within said outer cylinder; and

a top plate for holding said outer cylinder, said raw-material feeding port and said stirring mechanisms in a predetermined position; and

a paper making portion disposed in a lower portion of said stirring tank, said paper making portion including:

a wire cloth; and

a central body having an opening for holding said wire cloth and is connected to a suction unit, an upper surface of said central body being formed in a substantially conical shape,

wherein said raw-material feeding port is disposed above the apex of the conical upper surface.

23. (Previously Presented) The paper making method according to Claim 1, wherein said step of feeding further comprises feeding a raw material from a raw-material feeding port disposed above said wire cloth.

24. (Previously Presented) The paper making method according to Claim 1, wherein said step of feeding further comprises feeding the raw material from a plurality of raw-material feeding ports uniformly disposed above said wire cloth.

25. (Previously Presented) The paper making method according to claim 1, wherein said step of feeding a raw material further comprises feeding said raw material into a stirring tank having said wire cloth at one of its boundaries.

26. (Previously Presented) The paper making method according to claim 25, further comprising a step of stirring water in said stirring tank to thereby form the water which is in a stirred condition, wherein said step of stirring water is performed before said step of feeding a raw material.

27. (Previously Presented) The paper making method according to claim 25, wherein said step of maintaining the stirring condition for a predetermined time further comprises stirring in said stirring tank.

28. (Previously Presented) The paper making method according to claim 1, wherein said step of passing the raw material through a wire cloth while the stirred condition is maintained further comprises stirring the raw material diluted with the water as a moisture component is sucked through said wire cloth.

AMENDMENT UNDER 35 U.S.C. § 1.111
U.S. Application No.: 09/899,601
Attorney Docket No.: Q65349

29. (New) The paper making method according to claim 1, wherein said step of feeding a raw material further comprises feeding said raw material into a stirring tank having said wire cloth attached thereto so as to be disposed across an opening therein.